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Gravelly
sagebrush final
environmental
impact statement,
Madison Ranger
District,
Beaverhead

Department of
Agriculture

Forest Service

Beaverhead National Forest



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GRAVELLY SAGEBRUSH



RECORD OF DECISION



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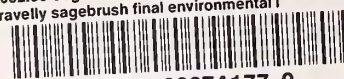
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RECORD OF DECISION

**Gravelly Sagebrush
Final Environmental Impact Statement**

**Madison Ranger District
Beaverhead National Forest
Madison County, Montana**



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RECORD OF DECISION

Gravelly Sagebrush Final Environmental Impact Statement (FEIS)

Madison Ranger District Beaverhead National Forest Madison County, Montana

The Decision:

I have decided that Alternative 3 - 20 Year Burning Cycle will be implemented in the Westfork Madison and Antelope Basin Areas. As a result of coordination with the Montana Department of Fish, Wildlife, and Parks, the desired mosaic in some burn units has been modified to be responsive to their concerns. This alternative covers the first five years of a long term vegetation management plan for sagebrush in these areas. Any future burning beyond the first five years will receive NEPA analysis and disclosure prior to implementation.

I have reviewed all the management activities that are associated with the four alternatives described in Chapter II of the FEIS and the environmental consequences associated with those activities disclosed in Chapter IV. I have also reviewed how each of the alternatives responds to the two environmental issues identified in Chapter II.

Each of the alternatives has a different way of achieving the purpose and need, described in Chapter I of the FEIS, which is to maintain the quantities of forage needed to sustain permitted numbers of livestock and meet forage needs of big game, and to maintain the diversity of wildlife habitats through (1) maintaining a variety of canopy covers in the sagebrush/grassland communities, and (2) maintaining a variety of successional stages in aspen. My objective was to select the alternative that best achieved the purpose and need yet provided acceptable environmental consequences.

For informational purposes, Alternative 1 - No Action does not meet the Purpose and Need. Alternatives 2 and 4 are responsive to the purpose and need with environmental consequences that are also within Forest Plan Standards and Objectives.

I have carefully evaluated the cumulative effects of the burning project in each of the alternatives. My evaluation included the effects of past activities, the existing situation, and reasonably foreseeable activities which included the future burning to complete the 10, 20, or 30 year cycle designed into the alternatives.

To insure the environmental effects do not violate requirements of the Forest Plan, I will implement mitigation measures. The mitigation included in Chapter II, Specific Features and Mitigation Measures will be implemented. Some of these measures are briefly summarized below.

Wildlife:

Wet areas important as feeding sites for sage grouse will be buffered with a 150 foot strip of unburned sage. The integrity of sage grouse breeding sites (leks) will be protected by buffering with a 1.5 mile radius of unburned sage around the site. No leks have as yet been discovered.

If Ferruginous hawk nest sites are discovered in a burn unit or within 440 meters of a burn unit, the unit will not be burned in the spring. The actual nest sites will also be preserved by protecting the nest from fire.

Bald Eagle and Trumpeter Swan nesting will be protected by fall burning of those units where smoke drift could impact the nests.

Potential impacts to elk calving areas will be reduced by leaving more unburned sage (50 - 70%) within the units identified by the Montana Department of Fish, Wildlife, and Parks biologist as important for elk calving. The average mosaic for the remainder of the burn areas would average 50% burned and 50% unburned.

Diversity:

To insure diversity objectives are met, burning schedules will be modified to compensate for natural fires that may occur in the area.

Fencing or herding of livestock or alternate methods of regeneration other than burning will be implemented where needed to protect aspen regeneration.

Livestock Management

The current number of livestock will not be increased because of this project.

Watershed:

To protect water quality, buffer strips of unburned sagebrush of varying widths will be retained along all streams.

Monitoring:

To insure the requirements of the FEIS including the mitigation measures are followed and the requirements are appropriate and the effects are within predicted limits, I have included extensive monitoring requirements (Chapter II Monitoring). Some of the specific monitoring requirements are briefly summarized below.

Sagebrush Mosaic:

Walk-through surveys of burned units will be conducted and maps of the burned/unburned mosaics prepared to determine if objectives are being met. Further burns and burning prescriptions will be modified if objectives are not being met.

Sagebrush Reestablishment:

Transects will be established to monitor the rate that sagebrush recovers within the burned areas. The transects will be established 1 year after the burn and will be read every 5 years thereafter on selected units throughout the project area.

Aspen:

Walk-through surveys and quick plots will be used to measure the response of aspen to the burns. These measures will further be used to monitor the utilization of the aspen by livestock and wildlife.

Sage Grouse:

District personnel will continue their regular program of reporting all sage grouse sightings in the project area.

Elk:

District personnel will continue to cooperate with MDFWP on the radio collar elk calving studies to help evaluate the effects of burning on calving or use of the areas by elk.

Public Involvement:

The public, including State and other Federal Agencies, have participated throughout the entire EIS process. An internal scoping session on January 10, 1990 identified potential issues and concerns. A news release was prepared and sent to the Forest and District mailing list and individuals who participated in the Implementation Analysis. Open houses were held in Butte on February 5, 1990; Ennis on February 6; and Bozeman on February 7. Eighty eight written responses were received from this initial public involvement. Analysis of these comments resulted in the identification of issues relating to wildlife and landscape diversity which would require definition by alternatives.

To continue public involvement, a Notice of Intent to Prepare an Environmental Impact Statement was forwarded to the Office of the Federal Register on April 17, 1990. The Notice of Intent appeared in the Federal Register on May 2, 1990. Written responses to this notice were received from the Skyline Sportsmen's Association and the Montana Department of Fish, Wildlife, and Parks.

During the summer of 1990 the Montana Department of Fish, Wildlife, and Parks reviewed the project area on the ground and gave site specific comments on each unit. A separate field review was scheduled for October 4, 1990 with the expressed purpose of reviewing the project area with the Montana Wildlife Federation, the Skyline Sportsmen's Association, and the Gallatin Sportsmen's Club. There were no representatives from these organizations at the review. A subsequent letter to these organizations expressing the availability of the Forest Service to visit the area again resulted in no additional requests.

In December of 1990 an additional review of the Alternatives and wildlife analysis was conducted with MDFWP representatives. The DEIS was released on February 8, 1991 with the comment period extending through April 30, 1991. Forty nine written comments were received on the DEIS.

On April 25, 1991 we held a public meeting in Butte, Montana to review the DEIS and receive questions and concerns. The meeting was attended by approximately 40 people. Representatives from the livestock industry, sportsmans groups and other interested organizations were present. Complete documentation of this meeting is included in the project file.

The comments I heard from the livestock industry were generally supportive of the proposal. Sportsmen and sportsmans groups expressed specific concerns about the impacts of burning on elk calving areas and more general concerns about other wildlife species. We responded to some specific questions and concerns relative to the historically low sage grouse populations and what we felt the reasons for this were. Skyline Sportsman's Association and others were interested in our grazing management strategies. We responded to these questions with specific information on the types of grazing systems and rotation schedules that were in place on all the allotments in the project area.

A general trend in several of the questions was whether enough research or data was available to support our analysis and findings. My general response to these questions was that I felt comfortable with the amount of information we had and that coupled with professional judgement and interpretation, our level of analysis was adequate and appropriate. Such questions were often presented in general terms with no specific recommendations or references to additional research or data that could have been added to our analysis.

On two occasions we met with Joel Peterson and Bob Brannon of MDFWP to review our responses to Department comments on the DEIS. One of the areas we discussed at length was the Departments concern about the effects of burning on elk calving areas. The Department had specific recommendations to leave 70% unburned sage in the mosaic within calving area burn units. I have tried to be more responsive to this recommendation by modifying the objectives for the desired mosaic in all burn units in calving areas to more closely approach the Departments objectives. I acknowledge I was unable to be 100% responsive to the 70% objective. To achieve a maximum 30% burn in all cases would be very difficult due to variabilities in fuels, weather conditions, terrain, etc. I also find that by restricting the burns to a maximum of 30%, the economic efficiency of burning would be adversely affected. In general, the modifications I made were to achieve a desired mosaic of 50% to 70% unburned sage within elk calving area units. I feel this will help to meet both agencies objectives while still being responsive to the purpose of the project and maintaining an economically efficient burning program.

I have taken into consideration information provided by the public in arriving at my selection of Alternative 3. This input will also be used for future actions in the Antelope Basin and Westfork areas.

Alternatives Considered:

In my decision to implement Alternative 3, I have considered two other "action" alternatives plus the prerogative of taking no action. These four alternatives gave me a wide range to consider significant amounts of sagebrush burning to no burning at all. The following discussion summarizes the alternatives and compares them to factors I considered important in my decision.

Alternative 1 - No Action would not burn any sagebrush within the Antelope Basin and Westfork Areas. This alternative does not meet the Purpose and Need to maintain the quantities of forage to sustain permitted numbers of livestock and meet the forage needs of big game, while maintaining a diversity of wildlife habitats.

Alternative 2 - 10 year cycle would burn approximately 3024 acres per year over a ten year cycle. This alternative would provide the greatest amount of forage and provide a greater amount of early successional stages in the sagebrush stands. In order to implement this alternative, disruption of grazing systems and pasture rotations would be needed to stay within Forest Plan Standards. The amount of forage for big game on summer range is not currently limiting, so this great of increase is not needed. Economics and logistics of getting this size program implemented would require changes in the amount of dollars and personel to get the job done.

Alternative 3 - 20 year cycle would burn approximately 1512 acres per year over a 20 year cycle. This is the preferred alternative and selected alternative. This alternative meets the Purpose and Need for maintaining the quantities of forage for sustaining the permitted numbers of livestock and provides a diversity of wildlife habitats. The 20 year cycle closely corresponds to the natural burning cycle and can be accomplished within the current grazing systems without major disruptions. These factors were important in my decision.

Alternative 4 - 30 year cycle would burn approximately 1008 acres per year over a 30 year cycle. This alternative meets the Purpose and Need to a lesser degree than the other action alternatives. In order to achieve the mosaic as recommended by the MDFWP on elk calving areas the amount of forage would be marginal to support the current permitted number of livestock.

The four alternatives were designed to address the two environmental issues in a variety of ways. Each action alternative provides a varying amount of forage for sustaining the permitted numbers of livestock and meeting the forage needs of big game. Alternative 1 does not provide sufficient forage in the long term to sustain the permitted number of livestock. Alternative 2 provides the greatest amount of forage. Alternative 3 meets the purpose and need with additional forage available above this level. Alternative 4 just meets the purpose and need with no surplus forage above that level.

Alternative 1 would result in older successional stages in the sagebrush types while aspen would continue to die out. Alternative 2 provides the greatest amount of early successional stages and treats the aspen at the fastest rate which will result in less loss of aspen in the short term. Alternative 3 provides a variety of successional stages and treats aspen to provide a variety of age classes. Alternative 4 provides the variety of successional stages of sagebrush with a favoring of the older successional stages. Considerable aspen loss would occur with implementation of this alternative.

Reasons for the Decision:

Applicable Laws, Regulations, and Policies:

In my review of the environmental analysis, disclosure of environmental consequences, and mitigation measures that will be implemented, I find that the selected alternative is in compliance with applicable laws, regulations, and policies.

Some of the principle laws I considered in this review were the Clean Air Act, the Clean Water Act, and the Endangered Species Act.

Compliance with these laws is demonstrated in the analysis and disclosures presented in Chapter IV and Appendix B of the FEIS. I feel the potential impacts relative to air and water quality and threatened and endangered species were adequately disclosed. I also feel that the mitigation measures that we will implement will compensate for the potential impacts and provide adequate protection to these resources.

How Environmental Issues were Considered and Addressed:

I reviewed the alternatives given detailed study to determine if they were responsive to the significant issues. I also reviewed the alternatives that were considered but not given detailed study to help me decide if we had considered a thorough and complete range of alternatives. I find that the total range of alternatives considered is thorough and complete. I also reviewed the public comments on the DEIS and found no specific references or recommendations that new alternatives should be developed. I acknowledge there were recommendations to select an alternative other than the one I have selected.

In my review of the alternatives given detailed study and their relationship to the significant issues, I made the following observations.

The No Action and the three action alternatives were responsive to the wildlife issue. The disclosure of effects in Chapter IV, and the comparison of effects in Chapter II display a range of effects on wildlife. The range of effects provided me with enough information to make a reasoned choice between alternatives and fully understand the consequences associated with my choice. I also found that while there was a range of effects on the various elements of wildlife we measured, I did not discern that any effects were of such significance that population viabilities would be threatened for any of the species. In fact, for the selected alternative, the habitats of big game and sage grouse would generally benefit. See Chapter II and IV.

I also reviewed the Biological Assessment for Threatened, Endangered, and Sensitive species and found that habitat requirements for these species would be protected or potential adverse impacts mitigated. The U.S. Fish and Wildlife Service further concurred with our findings. See Appendix B.

I also reviewed the action alternatives in terms of their responsiveness to the landscape diversity issue. The alternatives provide me with a range of choices here also. As shown in Table II-12, the range of successional stages in the sagebrush/grassland communities I have to choose from range from 0% early, 0% mid, and 100% late in the No Action alternative to 12% early, 6% mid, and 82% late in Alternative 4. There is a wide range of choices in the early and late successional stages while the mid successional stages remain more

constant. The description of alternatives in Chapter II also provided me with detailed information on their responsiveness to the issues.

In general, I find that the range of alternatives were responsive to both of the significant issues. Differences between the alternatives were such that I could evaluate varying magnitudes of effects as well as differing levels of responsiveness to the purpose and need of the proposed action described in Chapter I.

Factors Other than Environmental Consequences Considered in Making the Decision:

Factors other than environmental consequences that I considered in making my decision included what I heard through public involvement and the results of our coordination with MDFWP.

Our public involvement on this proposal was intensive and consisted of numerous public meetings, field reviews, personal conversations, and the written comments received during scoping for the DEIS and those received between the DEIS and release of the FEIS.

Analyzing all of this involvement is a difficult task at best as the comments we received were quite diverse in both specific content and in general philosophy. Comments ranged from outward opposition to any burning to clearly stated support for the preferred alternative or one of the other action alternatives. There were also many other comments expressing disagreement with particular findings or asking for more analysis and supportive documentation of the findings.

In reviewing all of the public involvement I did not simply "count votes" as to whether there were more people in support or opposed to the project. I reviewed all of the involvement in terms of what was being said or asked of us. Did the comments point out shortcomings in data or analysis? Did the comments provide new or more recent information that we should use on our analysis? Did the comments present specific questions and concerns or were they general and philosophical in nature? Did the comments focus on the decision at hand or were they dealing with issues or questions outside the scope of the analysis? I tried to evaluate all these things in my review of the public involvement.

I found that in general, the livestock industry supported the proposed action and in most cases, there were no specific questions, concerns, new information, etc provided along with the comment.

I found that in general, sportsmans, wildlife, and environmental groups such as Skyline Sportsmen's Association, Montana Wildlife Federation, and American Wildlands, and some other individuals were not supportive of the proposal. In most cases, these organizations and individuals also forwarded many specific questions, concerns, and suggestions. In these cases, I reviewed the content of the comments in relation to the questions I noted above.

I learned several things from this review. In some cases, new information was provided which we were able to incorporate in our analysis. A specific example is new information provided by American Wildlands relative to the sensitivity of Ferruginous Hawk to disturbance. The new information allowed us to improve mitigation measures for the hawk in Chapter II. I also learned that many of the specific comments were related to Forest Plan issues or concerns and were outside the scope of the analysis we were doing.

Many of the comments, while expressing general disagreement with our findings or analysis, did not offer any specific information or references supportive of their contentions. In many cases, the participants felt we had underestimated the magnitude of consequences or had missed or avoided some altogether.

A general feeling that came through in many of the comments was that we should not be treating the sagebrush to benefit livestock. The tone of these comments indicated a preference to let nature take it's course or that a sharp curtailment or removal of livestock from the area was the most appropriate action to take. The decision that these lands are suitable for livestock grazing was made in the Forest Plan. Actual

livestock numbers and grazing systems used on a particular area are determined through the AMP process and are outside the scope of this analysis.

In reaching my decision I also reviewed our involvement of MDFWP in the process. MDFWP biologists had been involved throughout our analysis. Several field reviews were conducted and MDFWP had the opportunity to see all proposed burn areas on the ground. MDFWP offered comments and recommendations prior to the DEIS and also between the DEIS and FEIS. While we still disagree on some points, I found the involvement most helpful in reaching a decision. I feel we have tried to be responsive to the Departments recommendations and have incorporated some additional mitigation measures based on their involvement.

Identification of Environmental Documents Read and Considered In Decision:

In reaching my decision, I have thoroughly read and understand the FEIS for this proposed action. In addition, I read the appropriate sections of the Forest Plan, the Forest Plan FEIS, and Forest Plan Record of Decision.

Findings Required by Other Laws:

Consistency with the Forest Plan:

I find my decision to implement Alternative 3 is consistent with the Forest Plan. In reaching this conclusion I first reviewed the Purpose and Need described in Chapter I of the FEIS. As stated in the Purpose and Need, the proposed action is consistent with forest wide goals and objectives, more specifically, forest wide Goal 1 on page II-1 of the Forest Plan, forest wide Goal 6 on page II-2, and forest wide objectives 1a and 1k on pages II-3,4,and 8. The selected alternative is consistent with these goals and objectives as it does provide opportunities for use of forage by domestic livestock at or above current permitted levels of use. The selected alternative also recognizes the values of the wildlife and fisheries resources and viable populations of existing populations will be maintained.

The selected alternative is also consistent with the desired future conditions for wildlife and domestic livestock noted on pages II-21 and 23 of the Forest Plan. These desired future conditions are also described in Chapter I of the FEIS.

Compliance With the National Forest Management Act:

The NFMA and accompanying regulations require that specific findings be documented at the project level.

1. Vegetative Manipulation:

All proposals that involve vegetative manipulation of tree cover for any purpose must comply with the requirements found in 36 CFR 219.27(b). The tree cover being manipulated in this project includes aspen stands and Douglas-fir that is encroaching into sagebrush/grassland habitats. I find the prescribed management practices in compliance with NFMA as follows:

- (a) They are best suited to the goals stated in the Forest Plan. These goals are stated in Chapters I and III of the FEIS and include both forest wide and management area goals.
- (b) The temporary setting back of Douglas-fir encroachment is for the purpose of enhancing forage production for livestock and wildlife and not for timber production. Assurance of restocking is not necessary to meet these objectives.

Aspen regeneration is also being implemented for purposes other than timber production. Acquiring regeneration of aspen is, however, very important in meeting the objectives of management. Regeneration will be assured through the burning prescriptions documented in

Chapter II. Many years of experience in such treatment would also lead me to believe burning is an appropriate method to attain aspen regeneration.

- (c) Treatment of aspen and Douglas-fir by prescribed fire is the most economically preferable treatment. (Chapter II, Alternatives Considered but not Given Detailed Study). I also find that in addition to being economically preferred, burning is less impactful on other resource values when compared to mechanical treatments or spraying.
- (d) Burning prescriptions are designed to achieve specific objectives. I believe that implementation of these prescriptions will adequately protect residual stands.
- (e) The treatments as prescribed will not permanently impair site productivity. Soil and water conservation will also be assured (Chapter II, Features Common to all Action Alternatives, and Chapter IV, Environmental Consequences, Vegetation and Watershed).
- (f) I find that the selected alternative will have the desired effect on water quality and quantity, wildlife and fish habitats, regeneration of desired tree species (aspen), forage production, recreation uses, aesthetics, and other resource yields. My consideration of these elements is disclosed in detail in Chapters II, III, and IV of the FEIS.

Identify the Environmentally Preferred Alternative:

I find that Alternatives 3 and 4 are both environmentally preferred alternatives. Both closely correspond to a natural burning cycle within the sagebrush/grassland types. The environmental consequences as shown in Chapter IV of the FEIS are such that either would result in negligible environmental consequences. Both alternatives are responsive to the purpose and need described in Chapter I but Alternative 3 is preferred as it definitely provides me with needed forage while Alternative 4 would just meet forage needs over time with very little margin for error.

Alternatives 3 and 4 are preferable to the No Action alternative because they are responsive to the purpose and need for diversity by maintaining sagebrush canopy covers and successional stages which would not be present in No Action and they more closely resemble natural burning cycles.

The environmentally preferred alternatives would also provide for the maintenance of aspen which would not occur with No Action. They are also preferred over Alternative 2 because they would be easier to implement. Alternative 2 would require some disruption of current grazing systems to implement while the preferred alternatives can be implemented without disruption.

I also find that the preferred alternatives can be implemented without adverse effects or disruption of other resources and uses. Wildlife habitats will be maintained or enhanced. Our mitigation measures will compensate for potential effects to threatened and endangered species and our activities will not likely adversely affect the species. The viability of wildlife populations will not be threatened. Water quality and fisheries will not be affected. We will not reduce recreational opportunities and pursuits. Roadless areas are not irreversibly or irretrievably committed. Visual quality is maintained.

And finally, I find that the environmentally preferred alternatives successfully integrate livestock and wildlife needs. I can provide the opportunity to graze livestock in response to needs of the consumer and also provide the economic benefits that such grazing provides to the livestock owner.

Implementation Date:

Implementation of Alternative 3, the selected alternative will begin on **AUG 19 1991**

Administrative Review or Appeal Opportunities:

This decision is subject to administrative review pursuant to 36 CFR 217. Any appeal of this decision must be fully consistent with 36 CFR 217.9, Content of Notice of Appeal, including reasons for appeal and must be filed with the Forest Supervisor, Beaverhead National Forest, 610 N. Montana St. Dillon, MT 59725. The Forest Supervisor is the Reviewing Officer. Appeals must be mailed within 45 days of the day after publication of this decision in the Montana Standard Newspaper (Butte, MT). If the Notice of Appeal is more than 10 pages in length, two copies must be sent.

For additional information concerning this decision or the Forest Service appeal process, contact Mark A. Petroni, District Ranger, Madison Ranger District, 5 Forest Service Road, Ennis, MT 59729, phone 406-682-4253.



MARK A. PETRONI
District Ranger
Deciding Officer

7/10/91
Date

